User Reference Manual

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1.1 Introduction

Even though the world computer market is still dominated by PC's, the Amiga range of computers is excellent. You may wish to run PC software but do not want to purchase a second computer. This is where PC-Task is ideal. It allows you to run the majority of PC software packages (that require an 80286 processor or below) on your Amiga computer, making use of the peripherals and memory (up to 16MB) which you already own.

The multitasking capabilities of the Amiga range of computers is what has set it apart from other computer systems. PC-Task is no exception - it works without taking over your computer. When in operation the PC-Task application can be switched to when required. Multiple versions of PC-Task can be executed at the one time allowing you to run multiple PC packages at once. At last pre-emptive multitasking comes to the PC!

PC-Task can support two floppy drives (including high density) and two hard disks. Pseudo hard disks can be created as a file on your hard disk. This feature allows the use of already created bridgeboard pseudo hard disk files. You can also use an Amiga partition as an MS-DOS hard disk.

MS-DOS is **not** supplied with this package. Versions of DOS that are suitable for use include 3.33, 5.0 or 6.2. MS-DOS can be purchased from most computer stores. If you have a PC computer you are able to make a bootable disk quite easily. Please refer to Section 4.1 - Creating a Bootable MS-DOS Disk for more information.

Note: If you purchase MS-DOS 6.2 it is supplied on high density floppies. If you do not have a high density drive, there is a form included in the package that entitles you to receive free low density disks.

1.2 System Requirements

PC-Task requires an Amiga computer with at least 512K of RAM and AmigaOS 1.2+. Please note that some features of PC-Task will only work if you have at least 1MB of RAM. Some display features will also be unavailable if you do not have an AGA compatible Amiga or a third party graphics card. See Section 2.5 - Graphic Adapter Options for more information concerning display modes.

Provided on the PC-Task program disks are versions of the software for different Amiga processors. The supplied Commodore installer program will install the correct version for your machine. If you are having problems with the install process, remember that there is a help button you can press.

Note: If you intend to run Windows 3.1 you will require a minimum of 1.5MB contiguous RAM (more recommended) and at least 6MB of available hard disk space (10MB recommended).

1.3 Backing up your PC-Task Disks

The PC-Task program disks are not copy protected to allow you to make working backups of these disks. We recommend that you do this before installing the software and to then install the software from the backups. Consult your Workbench manual for further information on making backups.

It is legal to make one backup copy only of the package for your own personal use. Please respect the enormous amount of time and effort put into this product and do not make copies for other people. Please support the developers of software as it is only through software purchases that this, and other products, can be developed and improved.

1.4 Installing PC-Task

PC-Task can easily be run from your program disks. It is not bootable so you must use a Workbench disk to start your machine. If you have a hard drive, PC-Task can be installed by double clicking the Install-PC-Task icon. Follow the instructions that appear on screen.

On PC-Task Disk 1 is a directory called MSDOSUtils. It contains six optional utilities that you can use with PC-Task during emulation:

COPYTOA.EXE	See Section 4.3
COPYTOI.EXE	See Section 4.3
DIRA.EXE	See Section 4.3
PCTQUIT.EXE	See Section 3.3
PCTMOUSE.EXE	See Section 3.2
PCTCDROM.SYS	See Section 5.7

These utilities are not required by PC-Task to run. If you wish to use them, either use the ProduceUtilDisk program, to create a 720K MS-DOS disk with a copy of the files, or copy the individual files across to an MS-DOS disk if you have the appropriate software.

1.5 Starting PC-Task

If you are running under AmigaOS 1.2 or 1.3 then you need to first double click the TDPatch1213 program. This program fixes bugs and adds some features to Kickstart to allow reading and writing to PC floppy disks when running PC-Task.

To start PC-Task double click the program icon that is appropriate to your machine. The correct version of PC-Task for your machine is dependent on your processor type. Below is a guide to which version is applicable for each Amiga model:

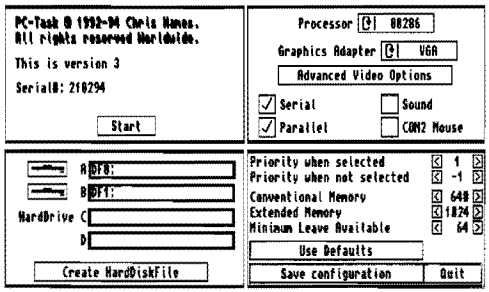
PC-Task68000_10/PC-TaskTurbo68000_10 are for 68000 & 68010 machines.
i.e. stock Amiga 500, 600, 1000, 2000's.

PC-Task68020_60/PC-TaskTurbo68020_60 are for 68020 or later processors.
i.e. stock Amiga 1200, 3000, 3000T, 4000's.

The program should load and display an option screen. If the option screen does not appear, but instead an error window stating that you have the wrong processor type is displayed, then the wrong version of PC-Task has been selected. If this occurs please reselect the correct icon.

There are two PC-Task programs for each type of processor. The Turbo version of the program is faster but at a cost. It uses four times as much memory as the normal version. So if you are running 1MB extended memory (plus the 1MB conventional and upper memory area) PC-Task will allocate approximately 5MB, but if you use the PC-TaskTurbo version, it will try to allocate approximately 8MB of RAM.

2.1 Option Screen



PC-Task Option Screen

The option screen allows you to change the various functions of PC-Task. To start the emulation just click the start button or press the return key, after you have set the options to suit your preferences.

2.2 Saving Options/Using Defaults/Quitting

At the bottom right of the PC-Task option screen there are three gadgets. These are used to control the configuration of PC-Task.

Use Defaults

This resets all options to the default values.

Save Configuration

This creates a file in the current directory called "PC.config" which contains the configuration as currently set. PC-Task attempts to load this file each time it is executed and will use its values if found.

Quit

Quits PC-Task.

2.3 Floppy Disk Options

PC-Task is able to take advantage of the Amiga's disk drives so you are able to read and write PC formatted disks. PCs use a different naming system for their disk drives. Whereas the drives on the Amiga are called DF0:, DF1: and so on, on the PC they are called drive A and drive B. You can only have two floppy disk drives on a PC, so the letters C, D, etc. are used for hard drives.

On the bottom left of the option screen are two text gadgets used to assign PC-Task's floppy drives A and B for use during emulation. The floppy drives can be assigned to any device, by entering the name of the drives into the text gadgets. By default DF0: is assigned as drive A, and DF1: is assigned as drive B (if applicable). These are the first two Amiga floppy drives. Alternatively if you have extra floppy drives you can assign these as the PC drives, for example set DF1: as drive A and DF2: as drive B.

By default, your Amiga floppy drives are used as MS-DOS 720K drives during emulation (or 1.44MB if you have a high density drive) and hence can only read disks of that format. Please note only some later A3000's and all A4000's were shipped standard with high density drives, other machines do not have high density drives. To determine whether your drive is high density, insert a high density floppy disk in the drive (these disks have an extra hole opposite the write protect tab) and format it from Amiga Workbench (only AmigaOS 2.0+). If it creates a disk with 1.76 MB capacity then this is a high density drive. If you do not have a high density drive in your Amiga several 3rd party high density drives are available.

People who mount their drives as MS-DOS drives, so they can read and write files using the AmigaOS 2.1+ MS-DOS filesystem, or other such software, can enter the device names that they use for that (e.g. PC0: & PC1:) in the text gadgets.

2.4 Hard Disk Options

During emulation a hard disk can either be a file or a partition on your Amiga hard disk. Each has its advantages. A hard disk file is more versatile. You are able to copy it, back it up and move it around, as AmigaDOS treats it as a normal datafile. But the compromise is speed. A hard disk partition is considerably faster.

You can emulate two hard disks, drive C and drive D. If you choose to set up only one emulator hard disk, it must be assigned as drive C, as drive D will not be accessed if drive C is not found. The emulator will boot off drive C if no MS-DOS disk is found in floppy drive A and drive C is bootable. Note that early versions of MS-DOS do not work with hard disk partitions larger than 32MB. It is suggested that you create hard disks of 32MB or less if you are using MS-DOS version 3.33 or lower.

It is important that you refer to Section 5.5 - Creating a Hard Disk Partition if you want to use a real partition on your Amiga hard disk instead of a hard disk file. The use of partitions should only be attempted by advanced users.

If you have an existing bridgeboard hard disk file, click the left mouse button on one of the hard disk text gadgets and enter the file name (including path) in the text gadget e.g. "Work:IBMHardDiskFile". PC-Task does not work with JLink virtual drives. If you want to create a hard disk file on your Amiga hard disk follow the instructions contained in Section 5.3 - Creating a HardDiskFile.

2.5 Graphics Adapter Options

You can emulate five different display adapters with PC-Task. You can toggle between modes by clicking the left mouse button on the gadget right of the *Graphics Adapter* text.

MDA

This is a monochrome, text only adapter that gives faster screen updates. You are able to select the colours that will be used in the Advanced Video Options.

CGA

CGA is the default graphics option and has the most complete implementation and compatibility.

EGA

EGA will do the same modes as MDA and CGA and adds some higher resolution graphics modes.

VGA

VGA will do all the modes of MDA, CGA, EGA and higher resolution graphics modes. One VGA mode requires a machine with the AGA chipset (such as the A1200 & A4000) or with a graphic board capable of 256 colours in order to display the correct colours. Other machines will display the mode but with incorrect colours.

SVGA 512K/SVGA 1Mb/SVGA 2Mb

SVGA modes are high resolution graphics modes, some of which require a machine with the AGA chipset or a graphics board capable of 256 colours in order to display the correct colours. Other machines will display the mode but with incorrect colours.

Many PC games use non-standard modes and features of EGA/VGA and therefore will not run correctly.

2.6 Advanced Video Options

Underneath the Graphics Adapter options you are able to select Advanced Video Options. This will bring up another window allowing you to select the Amiga screen mode for each graphics mode available. For a complete list of modes, please refer to Appendix D - Video Modes.

Down Mode
This will move down through the list of available video modes.

Up Mode
This will move up through the list of available video modes.

Window/Screen
This will select whether the current mode will run in a window or on its own screen. If running in a window the Public Screen can be selected using the PUBSCREEN ToolType. See Section 2.10 - ToolTypes/Shell Arguments.

Graphics Update
This selects whether the screen is updated immediately when any changes are made, or only updated after every 1, 2, 4 or 8 frames.

MDA Palette
This allows you to select the colours used when MDA is selected as the graphics adapter. Colours can be adjusted by sliding the red, green and blue gadget controls to the right of the colour boxes.

Set Mode
This gives you a choice, through the use of a screenmode requestor, of the available screenmodes on which to run the current video mode.

AmigaOS 1.2/1.3 users will have to enter the mode ID in the text gadget next to the Set Mode button. Some common modes are:

```
$0000        Lores
$8000        Hires
$8004        Hires Laced
```

PC-Task will automatically default to values viewable on all machines if no screenmode is selected for a PC graphics mode. If you select an Amiga graphics mode which has less colours than the PC mode you are using, the screen may look wrong, as PC-Task won't be able to use the correct colours.

2.7 Mouse, Parallel, Serial & Sound Options

You can toggle the *Parallel*, *Serial*, *COM2 Mouse* and *Sound* gadgets to on or off by clicking the left mouse button on these gadgets at the top right of the option screen.

When a tick is displayed in the gadget, the parallel or serial port can be used during emulation for printing or communications with a modem. By default both are selected for use.

To access either the serial or parallel ports with another Amiga program, while PC-Task is running, you will need to turn the relevant port in PC-Task to off. See the Section 2.10 - ToolTypes/Shell Arguments for information on how to select other serial and parallel ports.

The *COM2 Mouse* option changes the mouse driver (when activated) to emulate a Microsoft compatible serial mouse on COM2:. This increases compatibility with software that uses its own drivers for serial mice (eg. Windows 3.1). For more information on the mouse driver see Section 3.2 - Turning the Mouse Driver On.

The *Sound* option emulates basic PC sound. This is equivalent to the motherboard sound present on most real PCs and is intended for simple beeps. It does **not** emulate SoundBlaster or other PC sound cards.

2.8 Priority Options

As PC-Task allows your Amiga to continue to multitask, two options are provided to control the Amiga processor allocations to allow maximum emulation performance.

"Priority when selected" is the priority the processor gives to running the emulator, when the emulator screen/window is selected. Assigning a value of one (1) to this option gives the emulator the majority of the processor's time when PC-Task is in use. This means that the emulation will run faster in the Amiga's multitasking environment. There is usually no need to raise this value, as there is only minor speed increases.

"Priority when not selected" is the priority the processor gives to running the emulator when the emulator screen/window is not selected. Assigning a value of negative one (-1) to this option gives other programs the majority of the processor's time when PC-Task is not being used.

2.9 Memory Options

In the bottom right of the option screen there are three sets of left/right gadgets that allow you to change memory options of the PC. Before we explain these options the way memory is used on PCs will be discussed. The first 640K of memory on a PC is called conventional memory. After that you have 384K which is used for system hardware, device drivers, memory-resident programs, etc. and is referred to as the upper memory area. If you are not using EGA, VGA or SVGA, you can extend your conventional memory to 704K, and into the upper memory area. Beyond this first 1MB there is the high memory area, extended memory and expanded memory. Consult your DOS manual or related book for information on expanded memory and the high memory area.

The following memory options are available on the PC-Task option screen:

Conventional Memory

Sets the amount of memory PC-Task will allocate for emulation with the maximum base memory allowed being 704K, if MDA or CGA graphics adapter selected, and 640K if EGA, VGA or SVGA is selected. For best compatibility select 640K. If the emulator fails to get the amount set it will try for a smaller amount until it gets too low to be functional.

Extended Memory

Sets the amount of extended memory which will be allocated for emulation. You are able to select up to 15MB of extended memory. It is best if you do not allocate all available fast RAM on your Amiga for emulation. If you allocate more, PC-Task may use Chip memory, which will slow down the emulation.

Minimum Leave Available

This is the minimum amount of memory that the emulator will leave available for other Amiga programs, after it has allocated the main memory. This is used to ensure that your Amiga's available memory does not get too low when the emulator allocates the amount it requires. If the memory available gets below 64K the system may crash. It is suggested that this value is never lowered below 16K.

Because MS-DOS only manages conventional memory you need to use a extended memory manager. HIMEM.SYS is one that does this and is provided with MS-DOS. If you wish to use your extended memory you will need the following line (or similar, depending on options) in your CONFIG.SYS:

```
DEVICE=C:\DOS\HIMEM.SYS
```

If you are using a different memory manager, please refer to its documentation. Some programs require the availability of expanded memory. Since MS-DOS only comes with EMM386, you are unable to use it on PC-Task's 8086/80286 emulation. There are a number of shareware or public domain memory managers that work well with PC-Task. We have found that EMS40.SYS is one of these.

To free conventional memory to allow DOS programs to run, MS-DOS provides the option of running MS-DOS in the high memory area, using the following command in your CONFIG.SYS:

```
DOS=HIGH
```

This works with PC-Task, but we suggest only do this if you really need the memory. Because of the way PC-Task works, this will slow down the emulation.

A RAMDrive comes in handy when using PC-Task. The extended memory area can be used for this. A typical RAMDrive would be set up in the following manner in your CONFIG.SYS:

```
DEVICE=C:\DOS\RAMDRIVE.SYS 256 /e
```

2.10 ToolTypes/Shell Arguments

There are a number of options that cannot be accessed from the PC-Task option screen. These options are generally suited to the advanced user and are specified by adding the ToolType to the PC-Task icon or specifying the keyword after the program name when starting PC-Task from a Shell/CLI.

If you are using AmigaOS 1.2 or 1.3 you will need to add "=ON" to a ToolType to turn it on. These users will also have to enclose the ToolType with brackets to turn it off. For example, with the NOOPTIONWINDOW ToolType, AmigaOS 1.2/1.3 users will use:

```
NOOPTIONWINDOW=ON
```

to stop the option screen from appearing, and

```
(NOOPTIONWINDOW=ON)
```

to make it appear (if there is no ToolType, the option screen will still appear).

Following are the accepted ToolTypes.

LANGUAGE=ENGLISH,DEUTSCH,FRANÇAIS

Three languages are built into PC-Task and can be selected by this ToolType. If you do not have this keyword, PC-Task will default to the languages set in your preferences if you have AmigaOS 2.1 or above. Otherwise the English language will be used.

MAXDEPTHTWO
MAXDEPTHTHREE

These two ToolTypes limit the maximum screen depth that PC-Task will open. This can be of great use on an Old or ECS Chipset machine with chip (graphics) memory only or chip and slowfast (memory at $c00000 which is called fast on the system but is as slow as chip memory) memory only. On such a machine any more than a depth of two on a screen with a width of 640 will slow down the operation of PC-Task. If you do not mind losing some colours you can get faster operation by using either of these keywords. MAXDEPTHTWO limits the screen display to a depth of 2 for HIRES(width 640) screens. For LORES (width 320) screens double the depth is allowed before slowdown occurs.

BOOTANYFLOPPY

Does not check for valid boot code. Will boot from any MS-DOS floppy disk.

SERIAL=name.device,unit,flags

If you have more than the internal serial port on your machine or just want PC-Task to use the device instead of going direct to the internal serial port hardware, you can use this keyword. For using the internal port with the serial device use "serial.device,0,0".

PARALLEL=name.device,unit,flags

If you have more than the internal parallel port on your machine you can use this keyword. What PC-Task defaults to when you don't give a PARALLEL keyword is "parallel.device,0,32". The 32 means it will open in shared mode.

FONT=name.font

If you wish to specify your own font for use during emulation use this keyword. You can supply 8*8, 8*14 and 8*16 fonts.

NEVERBLANKPOINTER

Stops the mouse pointer from ever being turned off.

FORCEFASTMEM

Force PC-Task to get the PC memory from fast ram. This is only of use if you have more chip memory than fast memory.

NOOPTIONWINDOW

This stops the option screen/window from appearing when loading PC-Task. This option should be used when you want to use the options you have previously saved and go straight to the emulation.

PUBSCREEN=PUBSCREENNAME

PC-Task has the ability to open its option and emulation window on a public screen. This is how you are able to use it as a window on the Workbench screen. It also means you can open it on your favourite program (as long as it uses a public screen). To use this ToolType, substitute the public screen name for PUBSCREENNAME. For example, if you wish to open the window on Workbench you would use:

```
PUBSCREEN=Workbench
```

And to open the window on your first DirWork 2.1 screen:

```
PUBSCREEN=DIRWORK_1
```

NOGOLDENGATE

Use this to ignore a GoldenGate I or II board.

BOOTHARDDISKFIRST

If used PC-Task will ignore any floppy disks in your drives and boot from drive C if available.

BADPAL

Allows the 68020+ processors to use the 68000 version of PC-Task. This may be of use to people who have a bad 68030 board that doesn't read words from odd locations.

DISKMASK=MASKVALUE

Some hard disk controllers cannot DMA to all memory locations. This can cause problems with PC-Task, but this ToolType can fix the problem. The MASKVALUE determines the highest memory location PC-Task will use for disk transfers. Some typical examples would be:

```
DISKMASK=0xFFFFFFFE
DISKMASK=0xFFFFFF
```

Some controllers that may exhibit problems when DMA'ing to 32bit RAM:

GVP Series II SCSI/RAM
A570 with ROM revision below 6.6
A2091 with ROM revision below 6.6

3.1 General Emulating Information

The PC emulator starts by displaying the memory available for the PC and drive A-D's allocation. Insert a 720K DOS boot disk (or 1.44MB if you have a high density drive) into drive A, which is usually the internal drive DF0:, which the emulator will try to boot off. If no disk is found in drive A, the emulator will try to boot off the hard disk C. Once PC-Task has booted you will be able to run PC software as you would on a real PC.

3.2 Turning the Mouse Driver On

To turn the mouse driver on press LeftAmiga-P. This should be done prior to starting the PC program that you wish to use the mouse with.

You can also use the MS-DOS utility PCTMouse.EXE that is supplied with PC-Task to turn the mouse driver on. If you want the mouse driver to be on always, you can put the PCTMouse.EXE command in your AUTOEXEC.BAT file (see your MS-DOS manual for more details on the AUTOEXEC.BAT file).

Note: If you are using a screen for PC-Task the top part of the screen is cleared when you turn the mouse driver on and you can no longer use the screen's drag and depth gadgets. This means you cannot use the mouse to move the screen to the back. LeftAmiga-M will allow you to switch screens.

3.3 Rebooting & Quitting the Emulator

PC-Task can be rebooted just like a real PC, using the same keys as a PC. To do this, press the Ctrl-Alt-DEL keys all at the same time.

To quit the emulator press LeftAmiga-RightAmiga-DEL or LeftAmiga-DEL. You can also use the MS-DOS utility PCTQUIT.EXE, which is supplied with PC-Task, from the MS-DOS shell.

4.1 Creating a Bootable MS-DOS Disk

In order for you to be able to use the PC-Task emulation (or even a real PC) a bootable MS-DOS disk is needed unless you have a bootable HardDiskFile or partition from which to boot. To create a system disk (720K bootable) for use with PC-Task, you can insert a 3.5" DSDD (double sided double density) disk in a real PC's drive A: and enter at the MS-DOS prompt:

```
format A: /s          Or
format A: /s /f:720   Or
format A: /s /n:9
```

Insert this disk when you boot the emulator.

4.2 Getting Around in MS-DOS

There are many versions of DOS for PC's. Here is a quick guide to DOS. We recommend you purchase a guide for DOS if you are not familiar with it. There are many available, and any good PC store or technical bookshop should be able to help you.

DOS is in some ways similar to the Shell/CLI. If you type 'dir' you will get a directory listed of the current directory and if you type 'cd <directory>' you will change your current directory. Your MS-DOS manual will give a list of all the commands available. One difference to note is the use of the backslash (\) instead of the foreslash (/) used under AmigaDos.

As we have said before, the floppy disk drives are called drive A and drive B and the hard disks are called drive C, D, etc. Remember to use '<drive>' to change the current drive, instead of 'cd A:'. e.g. 'C:' or 'A:'.

Filenames under MS-DOS have a maximum of 8 characters with a 3 character extension describing the type of file. Files ending with .EXE or .COM are usually programs which can be run by typing their name. Script type files with a .BAT extension are text files containing a list of commands to execute which you can execute by just typing their name. General text files usually end with .DOC or .TXT.

Some common files you will see are AUTOEXEC.BAT and CONFIG.SYS. These are both text files and are similar to the AmigaDOS startup-sequence file located in the s: directory. The CONFIG.SYS file is executed first, and contains commands which configure your computer, such as device and mouse drivers. The AUTOEXEC.BAT file is executed next, and runs commands such as setting your path, running virus checkers, and starting memory-resident programs.

4.3 Using CopyToA, CopyToI & DirA

PC-Task comes with two MS-DOS utility programs which allow you to copy files between the PC devices PC-Task is using and your Amiga devices. These programs are located on the MSDOSUtil disk (see Section 1.4 - Installing PC-Task) are are used whilst running the PC-Task emulation. The programs are:

CopyToI AmigaPathFile IBMPathFile

Allows you to copy a file from your Amiga device (such as RAM, hard disk or floppy) to your PC device. For example:

```
CopyToI DH0:file.dat a:file.dat
```

This copies the file file.dat from DH0: to the floppy disk in drive A.

CopyToA IBMPathFile AmigaPathFile

Allows you to copy a file from your PC device to your Amiga device. It works the same way as CopyToI but in the opposite direction. For example:

```
CopyToA a:file.dat DH0:file.dat
```

This copies file.dat from your PC floppy drive A to your Amiga hard drive DH0:.

To print a file using your Amiga printer driver use the following example:

```
CopyToA a:file.txt PRT:
```

To copy a file directly to your Amiga parallel port use the following example:

```
CopyToA a:file.txt PAR:
```

DirA AmigaPathFile

Allows you to display the contents of an Amiga drive while running the PC-Task emulation. For example, typing

```
DirA work:files/
```

will display all the contents of the work:files/ directory on your Amiga's drive.

4.4 Getting Software to Run

If a program does not work it may if you use a different graphics adapter. CGA is the most compatible adapter in PC-Task.

Make sure the program you are trying will work on a normal PC and does not require a 80386 or greater processor machine, or more memory than you can allocate.

Use the 640K conventional memory setting on the options screen as it is the most compatible.

4.5 Obtaining as Much Memory as Possible

If you have 1.5MB or less memory available on your machine you might not be getting the full 640K for your PC emulation. Try one or more of the following:

Software Methods

Make a boot disk that only runs PC-Task (include TDPatch1213 if using AmigaOS 1.2/1.3).

Select MDA from the option screen, as it uses the least memory.

Switch the serial and parallel ports to off in the PC-Task option screen.

Disconnect external disk drives.

Lower the value of "Minimum Leave Available" on option screen.

Run the LeaveSlowFast program from a Shell/CLI if you have a 512KChip/512K Slow Fast machine.

Do not crunch the PC-Task program.

Hardware Methods

Many A500/A501 machines and A2000's have 512K chip memory and 512K fast memory. Since this memory is in separate locations PC-Task can only allocate a largest possible area of 512K. Most of these machines can be modified to have 1MB of chip memory by a repair centre. This helps PC-Task access more memory for emulation. There is no speed loss as this "fast" memory is actually as slow as chip and not real "fast".

Alternatively you could buy more memory!

4.6 Achieving Faster Emulation

Software Methods

Use the MDA Graphics Adapter. This mode only uses 2 colour text and is one of the fastest video modes to update.

When using either CGA, EGA, VGA or SVGA add MAXDEPTHTWO or MAXDEPTHTHREE to the PC-Task icon ToolTypes or your Shell/CLI arguments. These keywords reduce the number of colours displayed and therefore make a large difference to speed on a machine with only chip and slow fast memory.

Do not run other programs in the background when using the emulator.

Use AmigaOS 2.0+.

When using PC-Task in its own window or on a graphics board, screen updates will be considerably faster under AmigaOS 3.0+.

Hardware Methods

Having at least 1MB of true Fast RAM (2Mb or more is recommended).

Faster processors such as a 68020, 68030 or 68040 will increase the emulation speed. It is very important to have at least 1MB of 32bit RAM when using faster processors.

AGA machines, such as an A1200 or A4000, or machines with 24bit graphics boards have faster graphics updates. Some display modes PC-Task uses slow down emulation on ECS or earlier chipset machines.

5.1 File Exchange with Floppy Disks

Files on an MS-DOS disk can be accessed from the Amiga environment by using CrossDos - as supplied with AmigaOS 2.1+, MSH, MultiDOS and similar products. The files on these disks may then be accessed transparently from within any Amiga program. You are also able to specify these devices as either drive A or B in PC-Task's Floppy Disk Options (see Section 2.3 - Floppy Disk Options).

Warning: Filesystems usually make the assumption they are the only one with access to a drive, hence they often keep data internally. Don't write to a drive from AmigaDOS and under PC-Task and expect both systems to know about the change. You can use the diskchange command from the Amiga side to tell the Amiga filesystem that the disk has been changed since it was last accessed but no such command exists under MS-DOS. We suggest you don't write to a drive from the Amiga side while PC-Task is running to avoid this problem.

5.2 Using a 5.25" 40 Track Drive

Amiga owners with 40 Track, or 40 Track capable, 5.25" disk drives can use them under PC-Task. They are accessed by using a mountlist entry that indicates to PC-Task that they have 40 Tracks (not 80). This can be done by adding the following to your "devs:mountlist" file:

```
MS3:
Device              =trackdisk.device
Unit                = 2
Flags               = 0
Surfaces            = 2
BlocksPerTrack      = 9
LowCyl              = 0
HighCyl             = 39
#
```

Where the value for unit corresponds to 0=DF0:, 1=DF1:, 2=DF2: and the value for BlockPerTrack corresponds to 9=360K, 8=320K.

You should use an MS-DOS device (such as mfm.device that comes with Workbench 2.1+) instead of trackdisk.device.

If you are running AmigaOS 1.2 or 1.3 you will need to provide an MS-DOS device as trackdisk.device won't be patched by TDPatch1213 and will therefore result in errors.

```
MS3:
FileSystem          = L:CrossDOSFileSystem
Device              = mfm.device
Unit                = 2
Flags               = 0
Surfaces            = 2
SectorsPerTrack     = 9
SectorSize          = 512
Reserved            = 1
Interleave          = 0
LowCyl              = 0
HighCyl             = 39
Buffers             = 5
BufMemType          = 0
StackSize           = 600
Priority            = 10
GlobVec             = -1
DosType             = 0x4D534400
#
```

Execute the command "mount MS3:" from a Shell/CLI. Then specify MS3: in the drive A or drive B text gadget on the option screen. This will allow you to use that drive as a 360K 5.25" disk drive.

5.3 Creating a HardDiskFile

A HardDiskFile is an Amiga datafile which PC-Task uses as an MS-DOS hard disk. To get the best speed out of HardDiskFiles you should create them on a freshly formatted or defragmented AmigaDOS hard disk partition.

Step 1
Click on the *Create HardDiskFile* gadget on the option screen.

Step 2
Click on the *file name* text gadget and enter the file name (including path) you wish to assign to your hard disk file.

```
e.g. Work:IBMHardDriveFile
```

Step 3
Click the *size* text gadget and enter the size in megabytes you wish to use. A value of less than 32MB is recommended when using version 3.33 or below of MS-DOS.

Step 4
Click the *GoDoIt* gadget. If all is well the file should be created on your hard drive after a period of time. **Do not** reset your computer while creating a hard disk file as this may invalidate you hard disk.

Step 5
Click the *HardDrive C* text gadget and enter the name you entered in step 2. Save this configuration.

Step 6
Start the emulator and boot off an MS-DOS disk that contains the MS-DOS programs FDisk and Format. Do not use FDisk and Format programs which you may have copied from a PC portable. FDisk and Format are MS-DOS commands, not contained in COMMAND.COM, that come separately with the MS-DOS package.

Note: You can use the MS-DOS 5.0 install disk for steps 6 to 8.

Step 7
Execute the FDisk program and partition the hard disk (Note: Usually it is sufficient to enter return to all options).

Step 8

Now use the format command:

```
format c:          (To format only)
format c: /s       (To make the hard disk bootable)
```

Or make the hard disk bootable by using the command:

```
sys c:
```

Step 9

You should now be able to access hard disk C.

Make sure that the partition you have created the HardDiskFile on has buffers. This will speed up its operation. You do this by either using HDToolBox or the Addbuffers command in a Shell/CLI. Using 29 buffers per megabyte of HardDiskFile is the optimum, i.e. if you have a 20MB HardDiskFile, use buffers of 580 (20x29).

5.4 File Exchange with HardDiskFiles

CrossDos - as supplied with AmigaOS 2.1+, MSH, MultiDOS and similar products currently do not allow reading of PC-Task and bridgeboard type hard disk files. Provided on the PC-Task disk is a device called "hardfile.device" which can be used to allow reading and writing of files from these drives.

To access the hard disk file, add an entry to your "devs:mountlist" and mount the device. You must also assign HF: to the directory containing the hard disk file. The hard disk file must be named HardFileX where X is the unit you wish to use. When PC-Task creates a HardDiskFile it always uses 32 BlocksPerTrack, 4 Surfaces and varies the number of cylinders (16 per MB). The hardfile.device automatically goes past the partition information, losing the first track of the hard disk file. The mountlist must allow for this missing track. A simple way to do this is to set surfaces to 1 instead of 4, and to multiply the cylinder number by 4 and subtract one for the missing partition track.

A simple way to calculate the HighCyl requires is to use the following calculation:

```
HighCyl = (Size in MB x 4 x 16) - 2
```

For a 4MB HardDiskFile your HighCyl would be:

```
HighCyl = (4 x 4 x 16) - 2 = 254
```

Below is an example of a 1MB HardDiskFile under AmigaOS 2.1+:

```
MH0:
Device              = hardfile.device
Unit                = 0
Flags               = 0
Surfaces            = 1
BlocksPerTrack      = 32
LowCyl              = 0
HighCyl             = 62
Reserved            = 0
FileSystem          = L:CrossDOSFileSystem
Stacksize           = 4000
Priority            = 5
GlobVec             = -1
Buffers             = 5
BufMemType          = 1
DosType             = 0x4D534400
#
```

Below is an example for an MSH 1MB HardDiskFile:

```
MH0:
Device              = hardfile.device
Unit                = 0
Flags               = 0
Surfaces            = 1
BlocksPerTrack      = 32
LowCyl              = 0
HighCyl             = 62
Reserved            = 0
FileSystem          = L:MessyFileSystem
Stacksize           = 4000
Priority            = 5
GlobVec             = -1
Buffers             = 5
BufMemType          = 1
DosType             = 0
#
```

Do not use this device name (e.g. MH0:) as the hard drive specification for drive C or drive D in PC-Task.

Warning: Filesystems usually make the assumption they are the only one with access to a drive, hence they often keep data internally. Don't write to a drive from AmigaDOS and under PC-Task and expect both systems to know about the change. You can use the diskchange command from the Amiga side to tell the Amiga filesystem that the disk has been changed since it was last accessed but no such command exists under MS-DOS. We suggest you don't write to a drive from the Amiga side while PC-Task is running to avoid this problem.

5.5 Creating a Hard Disk Partition

Setting up a partition on your hard disk is more complicated than using a file as a hard disk, as described in Section 2.4 - Hard Disk Options. Only advanced users should attempt to set up a PC partition and even then must keep in mind that the wrong setup may cause loss of data on the hard disk.

You must assign an area of your hard disk for creating a PC partition, either by using partitioning software such as Commodore's HDToolBox or GVP's Faaastprep (if using a drive attached to a GVP controller), or by creating a mountlist entry for the partition in the file "devs:mountlist". If using versions of MS-DOS below 3.33 a partition cannot be larger than 32MB.

The DOSType (sometimes called the Identifier) **must** be set to 0x4d534800, then specify the partition as hard disk C or D on the PC-Task option screen and use FDisk and Format to partition it. If you wish to be able to boot from this partition you **must** specify the drive as hard disk C and boot from a floppy. Follow steps 6-9 in Section 5.3 - Creating a HardDiskFile for FDisking and formatting your partition.

MS-DOS has a series of restrictions on the size of various parameters of a hard disk. PC-Task solves this problem if the DOSType=0x4d534800 through the following formula:

```
TotalNumberOfBlocks=
((HighCyl+1)-L-LowCyl)*Surfaces*BlocksPerTrack
MSDOS_BlocksPerTrack=26
MSDOS_Surfaces=((TotalNumberOfBlocks/26)/1024/)+1
OR id ((TotalNumerOfBlocks/26)/1024)=1 < 2 MSDOS_Surfaces=2
MSDOS_CYLINDERS=(TotalNumberOfBlocks/26)/MSDOS_Surfaces
```

If you do not set DOSType=0x4d534800, PC-Task will pass on the real drive parameters to MS-DOS. They **must** be within these restrictions:

`Surfaces` - Must have a value in range of 1 to 255
`BlockPerTrack` - Must have a value in range of 8 to 63

Also: `((HighCyl+1)-LowCyl)` Must have a value in range of 1 to 1024.

5.6 File Exchange with Hard Disk Partitions

CrossDos - as supplied with AmigaOS 2.1+, MSH, MultiDOS and similar products can read and write to MS-DOS hard disk partitions. Most products currently have reservations about accessing hard disks, so proceed completely at your own risk. The following information is provided as a guide. Consult the other product documentation for a more complete explanation. This subject is further complicated by the option of getting PC-Task to give MS-DOS different parameters to the real ones using DOSType=0x4d534800 as outlined in Section 5.5 - Creating a Hard Disk Partition.

CrossDos handles the partition information if you have DosType=0x4D534800. You need to create a mountlist with the actual Device, Unit, Flags, LowCyl, HighCyl, Surfaces and BlocksPerTrack. We suggest that you use HDToolBox to read these parameters. Consult your Amiga Hard Drives manual for more information on using HDToolBox. Your mountlist must use a separate device name to the one you use with PC-Task.

```
PCC:
/* Replace these values with your Hard Disk's values */
Device              = scsi.device
Unit                = 0
Flags               = 0
Surfaces            = 4
BlocksPerTrack      = 32
LowCyl              = 551
HighCyl             = 653
/* These values will not normally change */
FileSystem          = L:CrossDOSFileSystem
Stacksize           = 4000
Priority            = 5
GlobVec             = -1
DosType             = 0x4d534800
Buffers             = 30
BufMemType          = 0
#
```

Note: If in HDToolBox, the parameters given for Heads x BlocksPerTrack do not equal BlocksPerCylinder, then assume that Heads are equal to 1 and BlocksPerTrack are equal to BlocksPerCylinder.

Warning: Filesystems usually make the assumption they are the only one with access to a drive, hence they often keep data internally. Don't write to a drive from AmigaDOS and under PC-Task and expect both systems to know about the change. You can use the diskchange command from the Amiga side to tell the Amiga filesystem that the disk has been changed since it was last accessed but no such command exists under MS-DOS. We suggest you don't write to a drive from the Amiga side while PC-Task is running to avoid this problem.

5.7 Using an Amiga CD-ROM Drive

PC-Task comes with a very basic CD-ROM driver called PCTCDROM.SYS. This, combined with the MS-DOS CD-ROM extension software, allows the reading of CD-ROM's from PC-Task. This is included with MS-DOS 6, but can also be obtained separately for MS-DOS 5 users. Internet users can go via anonymous ftp to the ftp.cdrom.com site and fetch /cdrom/cdext.exe (a self-extracting archive). It should also be available on Microsoft BBS's and the MSL library on CompuServe as CDEXT.EXE.

Your CONFIG.SYS file must have an entry:

```
DEVICE=PCTCDROM.SYS /D:device,unit
```

Where device is the Amiga device to which the CD-ROM is connected (eg. scsi.device) and unit is the unit number. An example CONFIG.SYS file is :

```
LASTDRIVE=F
FILES=20
DEVICE=SETVER.EXE
DEVICE=PCTCDROM.SYS /D:scsi.device,0
```

You must enter manually or have in your AUTOEXEC.BAT file a line like:

```
MSCDEX.EXE /D:MSCD001  /M:8   /V
```

The only argument that is important to PC-Task is the /D:MSCD001.

Notes: MSCDEX V2.20 does not run under DOS 5.0 unless you use the MS-DOS command SETVER on it. Do this if it comes up with incorrect DOS version error message.

If you are using the CSA accelerator board in an Amiga 1200, and encounter problems while using CD-ROMs under PC-Task, try turning off the caching and burst mode.

Appendix A Common Problems

No cursor

Try one or more of the following: turn off mode promotion, reduce overscan, move the screen to the right, don't use VGAOnly, try a different screen mode.

Disk-Full requester when selecting CreateHardDiskFile

You have tried to create a file larger than the space available on the hard disk you specified. Either reduce the size of the HardDiskFile and try again or give a filename with a path to a different hard disk.

PC-Task68020+ hangs with GVP board

Some old GVP 68030 Accelerator Boards have a PAL (a type of computer chip) that will not allow reading/writing from odd locations. If you find that the PC-Task68020_60/PC-TaskTurbo68020_60 version crashes or hangs soon after the emulation starts this could be the problem. These people should contact GVP for a replacement PAL which fixes this problem. See Section 2.10 - ToolTypes/Shell Arguments on the BADPAL option.

Wrong program for your processor

You have tried to run the incorrect version of PC-Task for your processor. Try another version of the PC-Task program.

Error opening or using: parallel.device

PC-Task cannot allocate the parallel.device for use. Possibly caused by another program using the printer or no parallel.device found in your "devs:" directory.

Error opening or using: Serial Port

PC-Task cannot allocate the serial port for use. Possibly caused by another program using the serial port.

Error opening or using: Timer

PC-Task cannot allocate the timer required for use. Possibly caused by another program using timers. Try PC-Task again after quitting other programs.

Keyboard seems to miss keys or similar

Delete the KEYB entry or any other keyboard related utilities from your AUTOEXEC.BAT unless it is needed to remap to a German keyboard or similar.

Appendix B Hints & Tips Using PC-Task

Following is some points we have picked up along the way which will help you when using PC-Task. Some of these are found elsewhere in the manual next to a related point.

If you have an A600 you are still able to use the numeric keypad by using the keypad commodity which is available from most Amiga dealers, the Fred Fish library and most other sources of freely distributable software.

Character sets do not work in MDA or CGA on PC-Task. However they don't work on a real PC under these modes.

To get lower right or upper right characters on foreign keymaps, use a combination of one or more of ALT, CTRL and SHIFT with the key. eg. the \ on the German keymap can be obtained by pressing ALT-CTRL-\. For a listing of available keymaps and characters refer to your MS-DOS manual.

Do not use disk compression software under PC-Task, such as DoubleSpace.

If PC-Task cannot get a screen with enough colours on your Amiga, such as when you access a 256 colour PC mode on a non-AGA Amiga (or without a graphics board), PC-Task will use less colours. This means the colours for that software will look wrong.

Speed test programs are not a good indication of the actual speed of PC-Task.

When using the 8086 emulation, and running a test program, it may say the PC-Task is using a NEC V20 or V30 CPU.

Blinking text is not supported.

Windows for Workgroups 3.11 requires a 80386 or greated to run, so will not work with PC-Task.

CGA video drivers for Windows 3.1 are available from Microsoft's BBS.

Turning multitasking off does not increase PC-Task's emulation speed. Please do not request us to do this.

Some screen blankers do not work correctly with PC-Task running. If you experience problems, disable your screen blanker before running PC-Task.

Appendix C PC Boot Procedure

When you switch on a PC or start PC-Task, inbuilt routines (commonly called the BIOS) carry out initialization procedures. The system then checks for a bootable disk in drive A or hard disk C to read from, and gives control to the DOS contained on this boot disk. The first sector on a DOS disk (located on track 0 sector 1 side 0) called the boot record is loaded and executed. It contains a routine that reads in the ROM BIOS interface for the DOS, usually contained in a file called IBMBIO.COM or IO.SYS. The DOS program file called IBMDOS.COM or MSDOS.SYS is loaded and executed.

Following this, the root directory of the boot disk is checked for a CONFIG.SYS file which contains information about device drivers and various other configuration details. The AUTOEXEC.BAT file is executed line by line similar to the Amiga's "S:startup-sequence" file.

COMMAND.COM, the interface between DOS and the user is then loaded. It produces the A:>prompt, or similar, at which you type commands in the PC environment.

Appendix D Video Modes

The modes supported by PC-Task are listed below:

Mode	Type	Size	Graphics Adapters	Colours
Mode $00	Text	40*25	CGA,EGA,VGA,SVGA	2
Mode $01	Text	40*25	CGA,EGA,VGA,SVGA	16
Mode $02	Text	80*25	CGA,EGA,VGA,SVGA	2
Mode $03	Text	80*25	CGA,EGA,VGA,SVGA	16
Mode $04	Graphics	320*200	CGA,EGA,VGA,SVGA	4
Mode $05	Graphics	320*200	CGA,EGA,VGA,SVGA	4
Mode $06	Graphics	640*200	CGA,EGA,VGA,SVGA	2
Mode $07	Text	80*25	MDA,EGA,VGA,SVGA	2
Mode $0D	Graphics	320*200	EGA,VGA,SVGA	16
Mode $0E	Graphics	640*200	EGA,VGA,SVGA	16
Mode $0F	Graphics	640*350	EGA,VGA,SVGA	2
Mode $10	Graphics	640*350	EGA,VGA,SVGA	16
Mode $11	Graphics	640*480	VGA,SVGA	2
Mode $12	Graphics	640*480	VGA,SVGA	16
Mode $13	Graphics	320*200	VGA,SVGA	256
Mode $100	Graphics	640*400	VGA,SVGA	256
Mode $101	Graphics	640*480	SVGA	256
Mode $102/6a	Graphics	800*600	VGA,SVGA	16
Mode $103	Graphics	800*600	SVGA	256
Mode $104	Graphics	1024*768	SVGA	16
Mode $105	Graphics	1024*768	SVGA (1Mb),SVGA (2Mb)	256
Mode $106	Graphics	1280*1024	SVGA (1Mb),SVGA (2Mb)	16
Mode $107	Graphics	1280*1024	SVGA (2Mb)	256

Appendix E MS-DOS Hard Disk Transfer

Creating a hard disk partition for use with PC-Task is one thing. Making this partition compatible with a real MS-DOS machine is another. Whilst AmigaDOS's RDB's (Rigid Disk Block) occupy the first 2 cylinders of a given hard disk, MS-DOS uses a different method. Thus installing RDB's on a disk that is to be used as an MS-DOS device on another (non-Amiga) machine will render the disk useless. To get around this problem we require a mountlist.

Any device that is listed when the "info" command is used, is "mounted". Most Amiga hard disk controllers auto-mount drives which contain RDB's. However, when a hard disk, or controller, does not contain or support RDB's, a mountlist is required. This is a file either called "mountlist" found in the devs: drawer (AmigaOS 1.2-2.04), or as a file named the same as the required device name in "devs:dosdrivers/" (AmigaOS 2.1 +).

The mountlist contains the relevant information required to tell AmigaDOS the specifications of the partition being mounted. This consists of the filesystem being used, the DOSType, the actual drive geometry and so on.

As we are trying to use the hard disk with an MS-DOS format on the Amiga, we require an MS-DOS filesystem such as MSH or CrossDos. CrossDos is a commercial product, that allows the reading and writing of MS-DOS formatted disk's (both floppy and hard) transparently from within AmigaDOS. CrossDos is included with AmigaOS 2.1+.

CrossDos will look for the first MS-DOS partition, and change the geometry you set to match this. PC-Task requires the actual drive geometry, and so we must not use the CrossDosFileSystem with PC-Task when we FDisk and format the drive. If we just use CrossDos, the disk may appear to format ok, but will be unreadable on an MS-DOS machine because the information written by FDisk will not be present.

In order to get the right drive geometry, we suggest you use HDToolBox on the Amiga. When the program is run, it will scan the SCSI bus to find any attached devices. Click on the device that you wish to format, and select *Change Drive Type*. Select *Define New* and then *Read Configuration*. You will need to write down the number of Heads, Cylinders and BlocksPerTrack. When you have written this down simply *Cancel* and *Exit* the program. Do **not** save the changes to the drive!

These numbers can then be placed into a mountlist. Surfaces is equal to the number of Heads. LowCyl should be 0, and HighCyl is equal to the number of Cylinders minus 1.

The following is a mountlist for use with PC-Task. It is for a 44MB SyQuest cartridge and the cartridge is readable on real MS-DOS machines, and Macintosh systems running "AccessPC" or similar.

```
PCD:
        Device              = <your scsi device>
        Unit                = <your unit number>
        Flags               = 0
        Surfaces            = 1
        blocksPerTrack      = 34
        LowCyl              = 0
        HighCyl             = 2549
        DosType             = 0x4d534800
#
```

Simply insert this into your mountlist file and type "mount pcd:". This will make AmigaDOS aware of the drive, but you will not be able to access the drive from AmigaDOS.

Now boot up PC-Task and specify PCD: as drive C: at the option screen. Follow the instructions in Section 5.5 - Creating a Hard Disk Partition to FDisk and Format the drive.

You should now be able to read from and write to the hard disk with PC-Task and transfer files between AmigaDOS and PC-Task using the CopyToI and CopyToA commands (see Section 4.3 - Using CopyToA, CopyToI & DirA). While using these utilities is suitable for a small number of files, you may be required to transfer hundreds of files between a PC and your Amiga. In instances like this it is far easier to use your favourite directory utility such as DirWork to copy all the files across. In order to do this you require CrossDos and another mountlist that gives your device a filesystem to use under AmigaDOS. Below is an example mountlist entry for a 44MB SyQuest cartridge.

```
PCC:
        FileSystem          = L:CrossDOSFileSystem
        Device              = <your scsi device>
        Unit                = <your unit number>
        Flags               = 0
        Surfaces            = 1
        blocksPerTrack      = 34
        LowCyl              = 0
        HighCyl             = 2549
        Buffers             = 5
        BufMemType          = 1
        StackSize           = 600
        Priority            = 5
        GlobVec             = -1
        DosType             = 0x4d534800
#
```

When this device is mounted, you will be able to read and write to the device just like any AmigaDOS partition. Its simply a matter of using a CLI or a directory utility like DirWork to copy any needed files across. It is important to note that all filenames will be truncated to MS-DOS's 8.3 format. CrossDos takes the first 8 characters before a point and the first three after. You may have to rename your files as the files TESTFILE1.PICTURE and TESTFILE2.PICTURE would both be named TESTFILE.PIC when copied to the MS-DOS device.

We suggest that you name your devices as we have here. While it does not matter what you call your device, the last letter of the CrossDos mountlist is very important. As with AmigaDOS, MS-DOS hard disks may contain several partitions. The last letter of the CrossDos mountlist denotes which partition on the disk to mount. Ending the device name in C will access the first partition, ending in D will access the second partition and so on.

Warning: Filesystems usually make the assumption they are the only one with access to a drive, hence they often keep data internally. Don't write to a drive from AmigaDOS and under PC-Task and expect both systems to know about the change. You can use the diskchange command from the Amiga side to tell the Amiga filesystem that the disk has been changed since it was last accessed but no such command exists under MS-DOS. We suggest you don't write to a drive from the Amiga side while PC-Task is running to avoid this problem.

In order to use another size device, all that needs to be changed are the Surfaces (equivalent to the number of Heads), BlocksPerTrack, and the HighCyl (the number of Cylinders -1).

A mountlist for an 88MB SyQuest cartridge for PC-Task would be :

```
PCD:
        Device              = <your scsi device>
        Unit                = <your unit number>
        Flags               = 0
        Surfaces            = 1
        blocksPerTrack      = 64
        LowCyl              = 0
        HighCyl             = 2709
        DosType             = 0x4d534800
#
```

and for CrossDos would be:

```
PCC:
        FileSystem          = L:CrossDOSFileSystem
        Device              = <your scsi device>
        Unit                = <your unit number>
        Flags               = 0
        Surfaces            = 1
        blocksPerTrack      = 64
        LowCyl              = 0
        HighCyl             = 2709
        Buffers             = 5
        BufMemType          = 1
        StackSize           = 600
        Priority            = 5
        GlobVec             = -1
        DosType             = 0x4d534800
#
```

A mountlist for a 270MB SyQuest cartridge for PC-Task would be :

```
PCD:
        Device              = <your scsi device>
        Unit                = <your unit number>
        Flags               = 0
        Surfaces            = 1
        blocksPerTrack      = 192
        LowCyl              = 0
        HighCyl             = 2729
        Buffers             = 5
        BufMemType          = 1
        StackSize           = 600
        Priority            = 5
        GlobVec             = -1
        DosType             = 0x4d534800
#
```

and for CrossDos would be:

```
PCC:
        FileSystem          = L:CrossDOSFileSystem
        Device              = <your scsi device>
        Unit                = <your unit number>
        Flags               = 0
        Surfaces            = 1
        blocksPerTrack      = 192
        LowCyl              = 0
        HighCyl             = 2729
        Buffers             = 5
        BufMemType          = 1
        StackSize           = 600
        Priority            = 5
        GlobVec             = -1
        DosType             = 0x4d534800
#
```

Appendix F Technical Support

Technical support for PC-Task can be received by any of the following methods.

Internet: pctask@quasar.dialix.oz.au

Amiganet: Either by using the PC-Task EchoMail area or,
netmail to Tech Support at 41:300/584.0

Note: If you do not recieve an E-Mail reply assume your mail was not received or our reply bounced.

Voice, Fax & BBS:

+61 3 583 8806 (Voice)
+61 3 585 1074 (Fax)
+61 3 584 8590 (The Galaxy BBS 1200-28.8K)

Mail:

Quasar Distribution
P.O. Box 188
Southland Centre
Victoria 3192
Australia

Appendix G Bug Reporting

Please refer to Appendix A - Common Problems, to see if there is already a solution to your problem. If your problem is not listed then try to isolate the problem. To do this check to see if the problem occurs when only Commodore supplied software is running, as third party programs can often cause conflicts with other programs.

If the problem still occurs and you believe you have found a bug with the PC-Task software, please provide as much information as possible. The following information should always be provided with a bug report to make isolating and fixing the problem possible.

```
Machine Model:
Kickstart Version:
Workbench Version:
Memory:
Expansion Boards:
```

The AmigaOS 2.0+ program, ShowConfig, normally in the Tools directory, provides the above information, except machine model. To use ShowConfig open a shell and enter:

`ShowConfig >ram:config`	To produce a file called ram:config.
`ShowConfig >PRT:`	To print the information to your printer.

Also include the following information which is specific to PC-Task.

```
PC-Task Version:
MS-DOS Version:
Initial BIOS Screen-
       Memory Available:
       Location Allocated:
AUTOEXEC.BAT file:
CONFIG.SYS file:
```

If the problem only occurs with a certain program, please provide the program where possible (please check copyright restrictions and ask before E-Mailing the program to Technical Support).

Appendix H References

CrossDos
This is the MS-DOS filesystem that is provided with AmigaOS 2.1+

DirWork
This is a commercial directory utility, also written by Chris Hames and published by Quasar Distribution.

EMS40.SYS
This is a freely distributable Expanded memory driver that will work under PC-Task. It is available via anonymous ftp from wsmr-simtel20.army.mil and the support BBS in the PC-Task Updates and Utils file area.

Fred Fish Library
Is a group of disks containing Freely Redistributable Software. Disks and CD-ROMs containing the library can be obtained through Amiga User Groups and software dealers.

Microsoft
The publishers of MS-DOS, Windows and numerous other packages. Updates are available via anonymous ftp from ftp.microsoft.com or from Microsofts support BBS (+1 206 936 6735).

MSH
"Messydos File System Handler" copyright Olaf 'Rhialto' Seibert. This is freely distributable shareware software package which is available from the Fred Fish Library collection. If you use this software please reward the author. It allows you to read and write MS-DOS 720K floppy disks and hard disks from the Amiga environment as if they were Amiga format disks.

MultiDos
MultiDos is an MS-DOS filesystem and is Copyright 1990, 1991 by Kjell H. Didriksen. All rights reserved. It is freely distributable, but may not be distributed for profit without written permission from the author. It can be found in the Fred Fish Library or BBS's and networks.

Appendix I Glossary

AGA
Advanced Graphic Architecture. The chipset which is found in the Amiga 1200 and 4000 models.

AmigaDOS
The disk operating system that is used by the Amiga range of computers.

CLI
The command line interface. This is used, via the Shell, to communicate with the computer through a series of commands.

Contiguous RAM
Consisting of a series of adjacent items. Contiguous RAM is a block of RAM.

Default
A value or action that is assumed if no other values or actions have been specified by the user.

Depth
Often when talking about screens on the Amiga the word depth is used. In standard display modes you can equate the palette from the depth. For example a depth of 4 means 4 bits are allocated for each pixel. The number of colours that this would allow would be 2 to the power of 4 or 16 colours. So for normal display modes (not HAM, HAM8 etc.) Colours=2 to the power of depth.

Device
A physical mechanism such as a printer or disk drive.

Double-click
To rapidly press and release a mouse button twice.

Drawer
Corresponds to an AmigaDOS directory. This allows files to be stored in a tree-like structure.

E-Mail
Electronic mail.

Gadget
A graphical representation for a function that can be activated by clicking on it with the mouse.

GoldenGate
The GoldenGate II bridgecard lets you use AT-compatible PC plug-in cards in your Amiga PC slots, as Amiga devices controlled by Amiga software, if a custom driver is available. The GoldenGate I & II expansion boards were created by David Salamon. PC-Task will, if a port is unknown, try to use the GoldenGate port.

Keyword
A word that is recognized by a command as identifying an argument or specifying an option.

Mountlist
Is a text file in the DEVS: directory that contains information about devices that have been attached to or installed in the Amiga

MS-DOS
The disk operating system that is used by PCs.

Partition
A subsection of a hard disk usually treated as if it is a separate hard disk.

Path
The series of device, directory and subdirectory names that defines the location of a file. The example "DF0:hello" is the path to the directory "hello" on the floppy disk drive "DF0:". If you wanted to refer to a file called "world" in that directory you would give the full filename (including path) of "DF0:hello/world".

Processor
The main CPU (central processing unit) that the computer executes instructions with. The Amiga range of computers is based on the 68000 and later processors.

Public Screen
A screen that can be used by any application, such as Workbench.

Tool Types
A method of passing arguments used by the Graphic User Interface. It is a field in the information window of a project or tool icon where optional parameters can be entered.

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